

EPI Update for Friday, March 3, 2006
Center for Acute Disease Epidemiology
Iowa Department of Public Health (IDPH)

Items for this week's EPI Update include:

- **Mumps update**
- **Influenza update**
- **Information on listeria**
- **Meeting announcements**

Iowa mumps update

Iowa is still seeing an elevated number of mumps cases. A total of 28 laboratory-confirmed cases also experiencing symptoms of mumps have been reported to IDPH thus far this year, 15 in the month of February. To further investigate this increase in cases, IDPH and the University Hygienic Laboratory (UHL) have coordinated a mumps sentinel surveillance network. Several counties and health clinics have agreed to assist in collecting laboratory specimens and completing supplemental questionnaires with suspected and confirmed cases. In addition, UHL is submitting viral isolates to the Centers for Disease Control (CDC) for genetic testing.

Clinical guidelines

Health care providers should suspect mumps regardless of vaccination history. Since 70 percent of cases have a history of 2 doses of mumps-containing vaccine, providers should diagnose mumps using laboratory testing. Mumps should be reported immediately to the local public health agency.

Suspect mumps testing protocol

IDPH encourages all providers to use UHL for mumps testing.

1) Isolation of the mumps virus: This is the best method for diagnosis. Viral isolates will be sent to CDC to determine genotyping and comparison to the vaccine strain. Specimens should be submitted with a completed UHL "Non-Respiratory Disease" Test Request Form. The form can be found at:

www.uhl.uiowa.edu/kitsquotesforms/respiratoryrequestform.pdf

- a) *Parotid gland duct swabs for viral culture in M4 transport media (pink liquid) may be collected from date of onset of symptoms to nine days after onset of symptoms.* Massage the parotid (salivary) glands for 30 seconds prior to swabbing the throat at the Stensen's duct orifice (which is level with the upper 2nd molar). **Place swab in viral (M4) transport medium and do not remove. Specimen must be stored and shipped cold (on ice packs).** Laboratories have M4 transport tubes available in the UHL Biodefense kits (blue box), herpes kits and virus isolation kits.

AND

b) Urine clean catch collected up to 14 days after symptom onset, in screw-cap, sterile container. Store and ship cold.

2) Serologic testing: collect 7-10 ml blood in a red top or serum separator tube (SST) with a completed UHL Serology Test Request form and ship either **a)** cold, with culture specimens on ice packs, or **b)** at ambient temperature.

a) Acute serum - should be collected within 5 days after symptom onset

b) Convalescent serum - should be collected within 2-5 weeks after symptom onset

Both the acute and convalescent sera are needed to diagnose an active case of mumps.

Influenza update

Seasonal Influenza: Iowa and the United States

Influenza in Iowa is increasing significantly, and the peak of activity may occur in the next few weeks. The influenza activity level was increased to widespread for the week ending Feb. 25. Reports of patient visits due to influenza-like illness have risen significantly. Several schools have reported absenteeism greater than 10 percent. Laboratory-confirmed cases have also increased. At this point, influenza is considered to be widespread throughout the state.

Vaccination efficacy

Thus far, all UHL-confirmed influenza cases in Iowa have matched this year's vaccine strain. Even though influenza is peaking very late this season, the flu vaccine will still be able to protect vaccinated individuals from acquiring the disease and reduce the severity of illness. CDC does not recommend any additional vaccination in persons who have already received one dose in the current season. (However, children receiving the flu vaccine for the first time, should be given two doses.)

It is not too late to vaccinate children and adults. The Immunization Program has influenza vaccine remaining that may be used for all populations. This vaccine may be distributed to all Vaccines for Children Program providers while supplies remain. Please contact the Immunization Program at 1-800-831-6293 to place an order.

Avian influenza

Human cases of H5N1 influenza are still being detected in China, Cambodia, Indonesia, Iraq, Turkey, Vietnam and Thailand. Additional countries in Europe and Africa are reporting avian flu activity in birds. Recently, a cat in Germany was confirmed to have died from avian influenza. Cats are not a common host for avian influenza and do not play a significant role in the transmission cycle. The deceased cat was found on an island where several birds had tested positive for the virus. For more information, visit the World Health Organization (WHO) Web site at www.who.int/csr/disease/avian_influenza/en/index.html.

Information on Listeria

Incidence: An average of 2,500 cases occur in the U.S. every year. Last year, Iowa had 8 cases, an increase from an average of 2.25 cases per year.

Causative agent: *Listeria monocytogenes*, a gram-positive rod-shaped bacterium.

Clinical features: Manifestations are host-dependent. In elderly and immuno-compromised persons, sepsis and meningitis are the main presentations. Pregnant women may experience a mild, flu-like illness followed by fetal loss or bacteremia and meningitis in their newborns. Immuno-competent persons may experience acute febrile gastroenteritis.

Sequelae: Estimates stand at 500 deaths annually in the U.S.

Transmission: Contaminated food. Rare cases of nosocomial transmission have been reported.

Risk Groups: For invasive disease: immuno-compromised individuals, pregnant women and their fetuses and neonates, and the elderly.

Surveillance: *Listeria* is a reportable disease in Iowa. IDPH tracks the number of cases and local public health officials interview each case to identify possible sources.

Trends: The U.S. annual incidence of listeriosis decreased by 44 percent between 1989 and 1993; an analysis of the incidence trend from 1996 to 2002 revealed a 38 percent decline. However, outbreaks continue to occur. In 2002, an outbreak that resulted in 54 illnesses, eight deaths, and three fetal deaths in nine states, was traced to consumption of contaminated turkey meat.

Challenges: Improve the safety of processed meats through meticulous in-plant sanitation and post-packaging pasteurization. Though rare, the risk to pregnant women and their unborn child present a need for education in this population. Those at risk should understand the risk of consuming raw, deli and processed meats (without further heating) and unpasteurized cheeses.

Correction

The Iowa Public Health Conference, "Strengthening Our Voice: Making Public Health a Priority," will be held at the Scheman Conference Center in Ames, Iowa **March 28-29, 2006**. The dates listed in last week's EPI Update were incorrect. For the conference brochure see www.idph.state.ia.us/common/pdf/conferences/brochure_032806.pdf.

Meeting Announcements:

The 30th Annual Iowa Infection Control Seminar will be held May 2-3 at the Gateway Center in Ames, IA. This program is of particular interest to physicians, nurses and allied health professionals who are involved with issues surrounding infection control and public health. To register, go to www.continuetolearn.uiowa.edu/conferencereg/meetings.aspx.

Have a healthy and happy week

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